

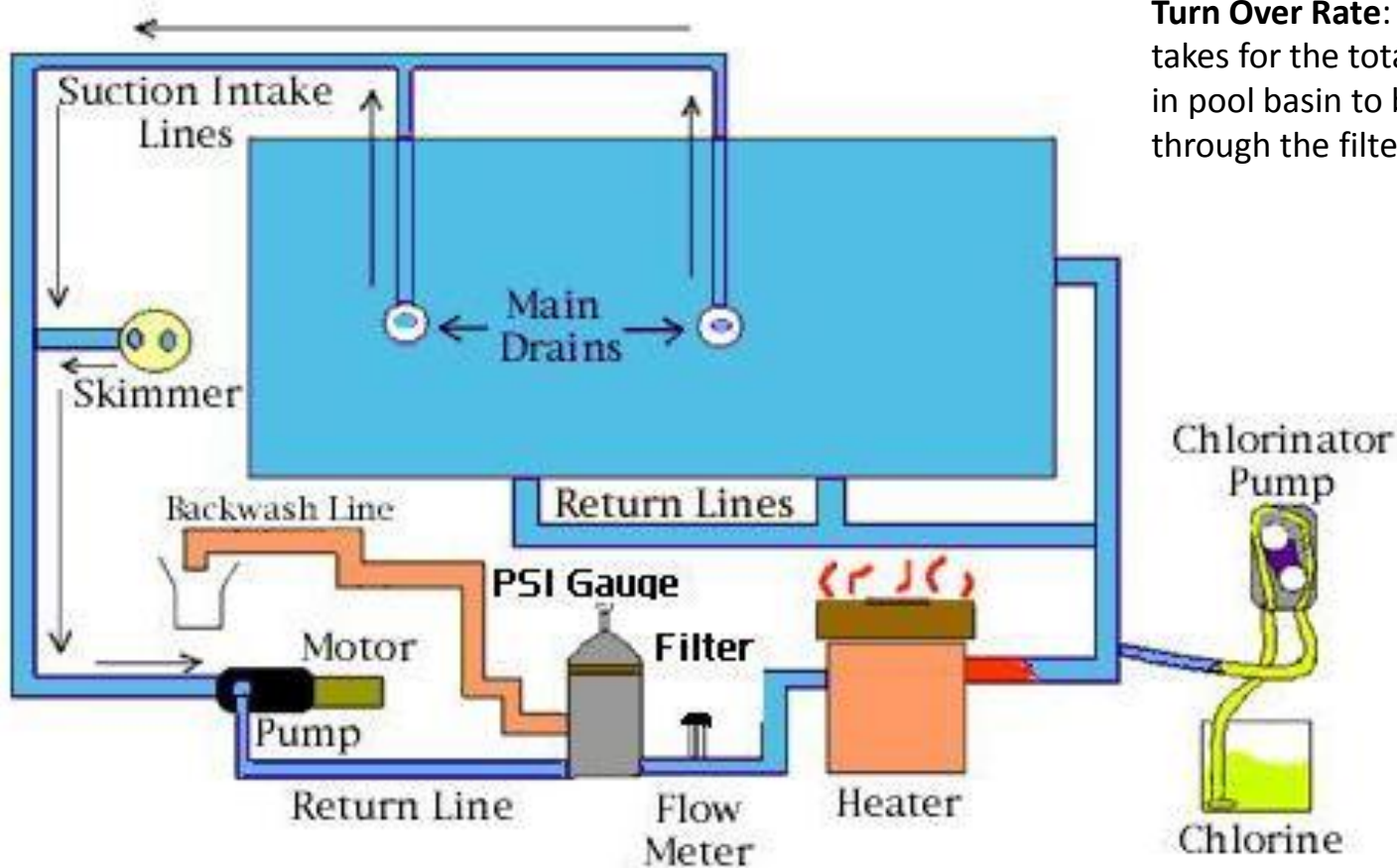
# Top Ten Things to Know about Pools

St. Croix County-Public Health  
Licensing and Inspections



# Understand the Basics of the Pool Circulation System:

The pool pump sucks water from the pool basin via the main drains and skimmers. The water then circulates through the filter to be cleaned. After cleaning it passes through the heater and disinfectant is fed into the water before it is returned to the pool basin via the inlets.



**Turn Over Rate:** The time it takes for the total # of gallons in pool basin to be circulated through the filter.

# Know When to Close the Pool

for any of the following:

- 
- Hazardous object or substance in the pool
  - Failure to comply with water quality standards
  - Failure to comply with disinfectant and PH values
  - A non-operational circulation pump, filter, or disinfectant feeder
  - Failure to comply with the number of lifeguards if required to have them
  - Absence or non-availability of a responsible supervisor

# Enforce the Posted Pool Rules

## Prevent drowning and injury

- Drowning is #1 cause of death for children ages 1-4 and #2 cause of death for children 5-14 year old in U.S.
- 69% of drowning victims were not expected to be near the pool, yet later found in the water
- 75% of pool fatalities occur in **5 minutes** or less
- Common injuries at pools are
  - Slips & falls
  - Diving into shallow water into a swimmer
  - Slide accidents
  - Improper use of equipment, failure
  - Electrical accidents/hot water burns



# Know *How*, *What*, and *When* of Testing



How: follow the  
test kit  
instructions

TABLE HFS 172.14 (August 2007) Minimum Disinfectant Residuals:

| Pool Type  | Cl <sub>2</sub> Residual | Total Cl <sub>2</sub> |
|--|--------------------------|-----------------------|
| Swimming and Activity Pools                                  |                          |                       |
| Swimming and Activity Pool                                   | 1.0 ppm                  | 3.0 ppm               |
| Swimming and Activity Pool With Stabilizer                   | 1.5 ppm                  | N/A                   |
| Wading Pools   |                          |                       |
| Wading Pool  | 2.0 ppm                  | 4.0 ppm               |
| Wading Pool With Stabilizer                                  | 3.0 ppm                  | N/A                   |
| Whirlpools, Exercise, Therapy Pools                          |                          |                       |
| Whirlpool  | 3.0 ppm                  | 7.0 ppm               |
| Whirlpool With Stabilizer                                    | 4.0 ppm                  | N/A                   |
| Water Attractions Other Than Those Specified                 |                          |                       |
| Water Attractions Other Than Those Specified                 | 1.0 ppm                  | 3.0 ppm               |
| Water Attractions Other Than Those Specified With Stabilizer | 1.5 ppm                  | N/A                   |
| Plunge Pools and Wave Pools                                  |                          |                       |
| Plunge and Wave Pool   | 2.0 ppm                  | 5.0 ppm               |
| Plunge and Wave Pool With Stabilizer                         | 3.0 ppm                  | N/A                   |
| Interactive Flow Attractions                                 |                          |                       |
| Interactive Play Attraction                                  | 2.0 ppm                  | 5.0 ppm               |
| Interactive Play Attraction With Stabilizer                  | 3.0 ppm                  | 7.0 ppm               |
| Water slides and Pool Slides                                 |                          |                       |
| Water slides   | 2.0 ppm                  | 5.0 ppm               |
| Water slides With Stabilizer                                 | 3.0 ppm                  | N/A                   |

\* When a water slide plunge pool or a wave pool is equipped with approved and properly functioning electronic monitoring devices to control the chlorine residual and pH level, the free available chlorine residual may be a minimum of 1.0 ppm.

172.14: Water Chemistry Standards:

- pH range of 7.2 – 7.8
- Cyanuric Acid (stabilizer) maximum of 30 ppm
- Total alkalinity range of 80 – 180 ppm as calcium carbonate
- Combined Cl<sub>2</sub> maximum: 0.5 ppm in Outdoor Pools & 0.8 ppm in Indoor Pools
- Cl<sub>2</sub> residual maximum of 10 ppm
- Br<sub>2</sub> total maximum of 20 ppm

172.16(1): Water Testing Frequency – Pools and Water Attractions

- pH & Disinfectant Residual twice weekly:
  - once daily before the pool is opened or in use,
  - once during the day's peak patron load,
- Combined Cl<sub>2</sub> twice weekly,
- Total Alkalinity once weekly,
- Cyanuric Acid once weekly,

172.16(2): Water Testing Frequency – Whirlpools, Therapy & Exercise Pools

- pH & Disinfectant Residual four times weekly:
  - once daily before the pool is opened or in use,
  - two or more times when in use,
- Combined Cl<sub>2</sub> once weekly,
- Total Alkalinity once weekly,

172.17(1) & (2): Water Test Kit Reagents

Reagents shall be stored in the original labeled container and shall be replaced as recommended by the manufacturer. Disinfectant testing reagent shall be DPD in powder (including tablets) or liquid form.

172.18: Water Temperature Standards:

- Indoor Pools: 72° F to 82° F
- Outdoor Pools: 140° F
- Whirlpools: 104° F
- Cold Soak Pools: May be <85° F when water temperature (°F) is posted in 4" letters.

172(3): Water Testing Frequency – Pools and Water Attractions w/ ORP

- pH & Disinfectant Residual once weekly,
- Continuously monitor the ORP device (600 – 850 mV)
- Combined Cl<sub>2</sub> twice weekly,
- Total Alkalinity once weekly,
- Cyanuric Acid once weekly,

172.17(1)(2) & (3) per 172.14(4): Water Test Kits

- Kits must measure for:
  - pH, (7.2 to 7.8),
  - Free Chlorine: 0 to 10 ppm Cl<sub>2</sub> in increments of 0.2 ppm,
  - Total Chlorine: 0 ppm – 20 ppm Br in increments of 0.2 ppm
  - Combined Cl<sub>2</sub> when Cl<sub>2</sub> is used (0 – 10 ppm in increments of 0.2),
  - Total Alkalinity (80 – 180 ppm as calcium carbonate),
  - Cyanuric Acid (100 ppm), when used.

What/When:  
Follow the WI Pool  
Cheat Sheet

# Monitor These 3 Everyday



**Flow  
Meter**



**Pressure  
Gauge**

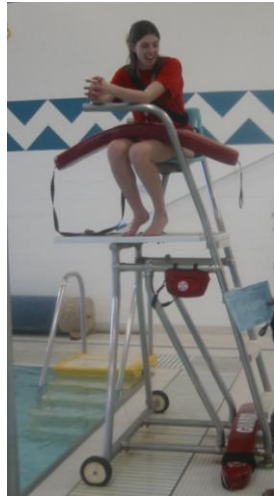


**Main  
Drain  
Covers**





# Ensure the Required Safety Equipment Is In Place



shepherd's crook or ring buoy with rope

first aid Kit



2 durable blankets

telephone in pool area



water fountain

## **Pool > 2000 square feet**

- Lifeguard (with rescue tube)
- Lifeguard chairs
- Ring buoy
- Spine board

# Know What To Do If There Is A Fecal Accident In The Pool



Close the pool and  
remove stool using  
biohazard kit

Closely follow the  
most recent CDC Fecal  
Accident Policy

- Formed stool accident: pool should be at least 2ppm FC /PH < 7.5 and then close pool for at least 30minutes. Clean filter
- Loose stool accident: pools with no stabilizer should be raised to 20ppm FC /PH <7.5 and closed for 12.75 hours. Clean filter
- \* for details see policy

Document your  
response either on the  
back of Monthly Pool  
Report or a separate  
fecal accident log



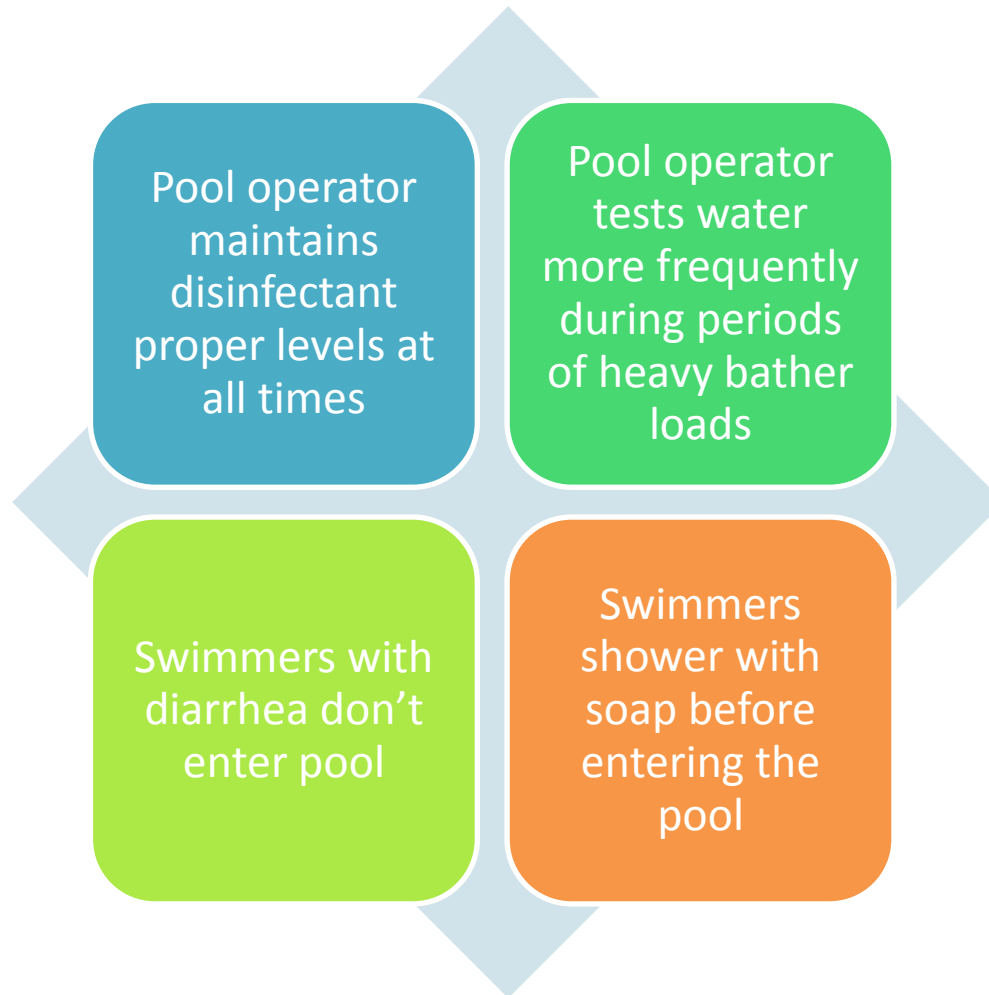
# Complete ALL Columns Of The Pool Report Daily

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# In Case Of A 9-1-1 Pool Emergency Fax Completed DII Report Form

| DEPARTMENT OF HEALTH SERVICES<br>Division of Public Health<br>DPH F-45036 (Rev. 11/08)   |               | STATE OF WISCONSIN<br>Bureau of Environmental and Occupational Health<br>HFS 172, Wisconsin Administrative Code |        |
|--|---------------|---|--------|
| <b>SWIMMING POOL AND WATER ATTRACTION<br/>DEATH, INJURY AND ILLNESS REPORT</b>   |               |   |        |
| <p>HFS 172.32 (2) The operator shall report incidents resulting in death, or serious injury or illness that requires assistance from emergency medical personnel, by the end of the next working day following the incident by telephone or fax to the department or agent. Personally identifiable information on this form is collected to provide for the potential of further investigation. Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04 (1)(m)].</p> <p><b>Please use one form for each injured party.</b> The operator shall maintain a copy of this report for at least seven years.</p> <p><b>Report only those injuries or illnesses that require assistance from emergency medical personnel.</b></p> <p><b>Mail or Fax report to:</b> Division of Public Health, Bureau of Environmental and Occupational Health,<br/>P. O. Box 2659, Madison, WI 53701-2659<br/>Telephone No. 608-266-2835, Fax No. 608-267-4853</p> <p><b>Please Print or Type All Information</b></p> |               |   |        |
| Establishment Name   |               | Facility ID No.   |        |
| Establishment Street Address, City, State and Zip Code   |               |   |        |
| Legal Licensee   |               |   |        |
| Contact Person   |               | Telephone No.   |        |
| Type of Pool or Water Attraction   |               |   |        |
| Name of injured party  | Date of Birth | Age   | Gender |

# Most Outbreaks In Pools Are Prevented If:



For copies of the Pool Code, WI Pool Code Cheat Sheet,  
Monthly Pool Report, DII Report Form , CDC Fecal  
Accident Policy, and HFS 172 Pool Code go to:

[www.sccwi.us/licenseandinspection](http://www.sccwi.us/licenseandinspection)

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